

Abstract

Title: Performance prognosis and comparison of male and female race performance in long distance Triathlon Ironman Hawaii.

Objectives: To analyze male and female performance in each part of triathlon (swim, bike, run) and whole race performance at 1979-2014. To find performance prediction of racers using time series analyses for race Ironman Hawaii in years 2028. It means fiftieth anniversary establishment of the race.

Methods: For statistical data processing we shall use time series analysis using SPSS statistic 22 software. We add the final graphs to the historical content and the actual conditions of the race. And then we create the performance prediction in the year 2028 based on the processed data.

Results: The swimming part will not significantly improve either men or women in the future. We shall see a slight improvement in the cycling part, as in men and women. In the running section, the performance will improve the most from all the parts of the race . Women will be much closer to the performance of men in the running part. Men finish the swimming part in 2028, in the time of 0:51:00 and women will be around the time 0:54:00 . In the cycling part the times will be around 4:10:00 for men and for women around the times of 4:39:30 . The running part men complete in 2:36:30 and women in 2:47:00. Men will deal with the whole race in 7:50:00. Women will be at the finish line in about 40 minutes later with the time of 8:30:00.

Keywords: Swimming, cycling, running, analyses, percentage point, endurance, abilities, time series analyses, cross-correlation

